
SR5

Netflex

Version 1.1

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Revision History

Date	Version	Description	Author
08/Nov/23	1.0	Created tables as templates for other members to work on the specifications of the use cases	Phạm Quốc Duy
11/Nov/23	1.1	Update and complete the specification for the use cases	Phạm Quốc Duy, Nguyễn Tấn Lộc, Tăng Tường Thoại, Trần Thành Duy, Đinh Quang Phong

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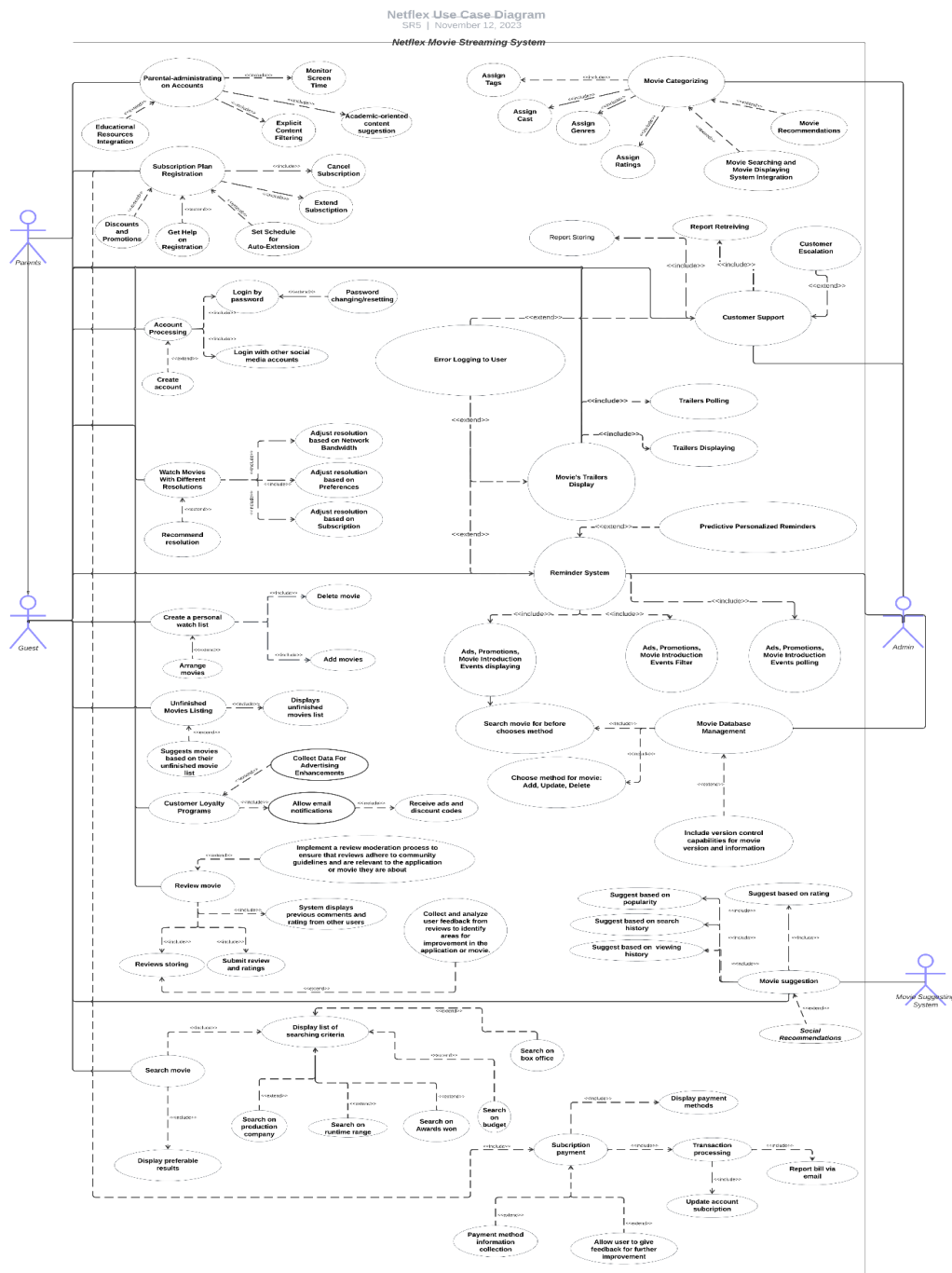
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Use Case Diagram

Link to the full design of the diagram on Lucidchart for further elaboration:

https://lucid.app/lucidchart/041f1052-260e-4d48-932c-49ef31ca2792/edit?viewport_loc=-280%2C2992%2C4276%2C2108%2C.Q4MUjXso07N&invitationId=inv_c641fd14-fdec-4512-b099-4aa288439ffe



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Use-Case Specification: Watch Movies With Different Resolutions

Use-Case ID	001
Use-Case Name	Watch Movies With Different Resolutions
Brief Description	This use case allows users to watch movies in different resolutions based on their preferences and available bandwidth.
Actors	Registered User: Client and Admin
Basic Flow	<ol style="list-style-type: none"> 1. The user selects a movie to watch. 2. The system presents the user with options to choose the resolution depending on the user's subscription, "Free: up to 720p", "Premium: up to 1080p" and "Signature: up to 1440p". 3. The user selects their desired resolution. 4. The system streams the movie to the user in the chosen resolution.
Alternative Flows	<p>Unsupported Resolution If the user selects a resolution that isn't supported by their device or lost internet connection, the system should:</p> <ol style="list-style-type: none"> 1. Automatically adjust the video quality to the highest supported resolution. 2. Notify the user about the change in resolution for the optimal viewing experience. <p>Technical Issue If there are technical issues affecting the movie streaming, such as server problems or content unavailability in the selected resolution, the system should:</p> <ol style="list-style-type: none"> 1. Notify the user about the technical issue. 2. Offer an alternative resolution option if available. 3. If no alternative is available, allow the user to try again later or select a different movie to watch. <p>User Cancels If the user cancels the resolution selection and returns to the movie selection screen, the system should maintain the user's previously chosen resolution option if the user goes back to watching the same movie.</p>
Special Requirements	<p>Usability Requirements</p> <ul style="list-style-type: none"> - The resolution selection interface must be intuitive and easy to use for a wide range of users. - The user's selected resolution should be clearly displayed during playback for user awareness. <p>Performance Requirements</p>

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	<ul style="list-style-type: none"> - The system must support adaptive streaming to adjust the video quality in real-time to ensure a seamless viewing experience, especially for users with varying internet bandwidth. <p>Compatibility Requirements</p> <ul style="list-style-type: none"> - The video streaming system must be compatible with a variety of devices and browsers. - The system should provide options for resolutions that are supported by the user's device and network conditions. <p>Design Constraints</p> <ul style="list-style-type: none"> - The system should be designed with scalability in mind, allowing for the addition of new resolution options as technology evolves. - The user interface for resolution selection should be consistent with the overall design and branding of the website.
Pre-conditions	<p>User Authentication</p> <ul style="list-style-type: none"> - The user must be successfully logged in to their registered account on the Netflix website. <p>Movie Selection</p> <ul style="list-style-type: none"> - The user must have selected a movie to watch from the available library of content. <p>Resolution Options Availability</p> <ul style="list-style-type: none"> - The system must offer multiple resolution options (e.g., 720p, 1080p, 1440p) for the selected movie. <p>Supported Resolution by Device/Connection</p> <ul style="list-style-type: none"> - The selected resolution must be supported by the user's device and internet connection. If the selected resolution is not supported, the system will default to the highest supported resolution. <p>Stable Network Connection:</p> <ul style="list-style-type: none"> - The user's device must have a stable and sufficient internet connection to support the chosen resolution for streaming the movie.
Post-conditions	<p>Video Playback Initiated</p> <ul style="list-style-type: none"> - The selected movie begins playing in the chosen resolution. <p>User Experience Confirmation</p> <ul style="list-style-type: none"> - The user is provided with visual confirmation that the movie is playing in the selected resolution. <p>Continuous Monitoring</p> <ul style="list-style-type: none"> - The system continuously monitors the network conditions and, if necessary, adjusts the video quality to ensure a smooth and uninterrupted viewing experience. <p>User's Chosen Resolution Saved</p> <ul style="list-style-type: none"> - The system saves the user's chosen resolution for the current movie for the duration of the viewing session. If the user returns to the same movie, it will default to the previously selected resolution. <p>Option to Change Resolution</p>

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	<ul style="list-style-type: none"> - During movie playback, the user may have the option to change the resolution by accessing the resolution settings. <p>Technical Issue Handling</p> <ul style="list-style-type: none"> - In case of technical issues, such as server problems or content unavailability in the selected resolution, the system provides appropriate notifications and, if possible, alternative resolution
Extension Points	<p>Resolution Recommendations</p> <ul style="list-style-type: none"> - Implement an extension to provide users with resolution recommendations based on their device capabilities and network conditions for an optimized viewing experience.

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Use-Case Specification: Movie Categorization

Use-Case ID	002
Use-Case Name	Movie Categorization
Brief Description	This use case allows the administrators to categorize movies using different criterias such as: genre, casts, tags, ratings...etc.
Actors	Registered Administrators
Basic Flow	<ol style="list-style-type: none"> 1. The admin navigates to the categorization page 2. The admin views the list of movies that require categorizing 3. System responds with a list of movies that needs categorizing 4. The admin selects a movie to categorize 5. The admin assigns tags, genres, ratings, casts information to the movie 6. The admin updates the movie's metadata with the categorization information 7. System updates the movie's metadata and saves changes in the database
Alternative Flows	<p><i>Empty list of movies that need to be categorized</i> When the list of movies that require categorizing is empty: :</p> <ol style="list-style-type: none"> 1. The system displays the message "Empty list" to the admin 2. System allows the admin to return to the homepage to conduct other tasks <p><i>Unable to find the appropriate tags/genres for movies</i> If the administrator can not find a suitable tag or genre to assign to a movie:</p> <ol style="list-style-type: none"> 1. The system displays the option for the admin to add a new genre/tag 2. The admin enters the new genre/tag and press "Save" 3. System adds the new genre/tag to the collection of genres/tags and saves changes in the database 4. System returns to the movie categorizing section 5. The admin continues to categorize the remaining movies <p><i>System fails to fetch the list of movies that require categorizing</i> In the situation of the system failing to retrieve the list of movies for categorizing:</p> <ol style="list-style-type: none"> 1. The system automatically retries to fetch the list 2. If after two retries the system still can't fetch the list, display the error message "Unable to fetch list" to admin 3. If the system successfully fetches the list, allow the admin to continue categorizing the movies
Special Requirements	<p><i>Usability Requirements:</i> The administrator's panel should provide a functional, convenient and friendly interface to optimize the admin's overall work experience</p> <p><i>Server Stability Requirements:</i> The server should be working optimally to allow the admins to categorize and update the movies' metadata accordingly without encountering any major problems. Should there be a server error, the problem should be fixed in approximately 5 minutes</p>

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Pre-conditions	<ol style="list-style-type: none"> 1. There should already be a system for movie storage and management 2. The admin should already be authorized and logged in 3. The new movies should continuously be added to the system
Post-conditions	<ol style="list-style-type: none"> 1. The categorization system is easy for administrators to work on categorizing movies 2. All the movies in the system are accurately categorized 3. The categorization system should function well with the searching system 4. The categorization information should be able to be used efficiently to display movies as groups on the website
Extension Points	<p><i>Recommendation For Movies</i> This takes place after the movies have been categorized and it allows the administrators to use the categorization data to make more accurate and relevant recommendations to the users on certain types of movies based on their watch history, search history,...</p> <p><i>Integration With Movie Searching and Displaying System</i> This takes place after the movies have been categorized and it allows the categorization system to be integrated with the movie searching system to provide more accurate searching results as well as the displaying system to categorically show movies on the home page</p>

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Use-Case Specification: Advanced Movie Searching

Use-Case ID	003
Use-Case Name	Advanced Movie Searching
Brief Description	Allow users to seek out a list of movies based on multiple criterias such as cast, content, rating, keywords respectively.
Actors	Registered User, Admin
Basic Flow	<ol style="list-style-type: none"> 1. The system displays a list of searching criteria. 2. The user chooses which kind of filter they expect. 3. The desired value is filled into the search filter by the user. 4. The system starts to seek movies based on user input information. 5. The system responds with many pages of movies whose descriptions are similar to the type of the chosen option.
Alternative Flows	<p>Invalid searching values: When user gave inappropriate values to the search option:</p> <ol style="list-style-type: none"> 1. The system displays all unacceptable input fields. 2. The system requires the user to refill the search information. <p>No results found: On empty result case encounters:</p> <ol style="list-style-type: none"> 1. The system raises an announcement on the user display screen about empty film searching. 2. The system asks the user to provide different values or choose another search option.
Special Requirements	<p>Desire matching proportion:</p> <ol style="list-style-type: none"> 1. The results must match the user's needs by as much as 70%. <p>Performance of the function:</p> <ol style="list-style-type: none"> 2. The system must display a user-friendly searching interface. Allow users to choose a suitable search option for their own needs. 3. Final results are required to be retrieved no longer than 0.1 second.
Pre-conditions	<ol style="list-style-type: none"> 1. Users have to complete the login process first.
Post-conditions	<ol style="list-style-type: none"> 1. A list of preferable movies are listed. 2. The user should be able to view the details of each movie, including the title, release date, genre, director, cast, rating, keywords, and plot summary. 3. The user should be able to add movies to their watchlist or queue.
Extension Points	<p>More search criterias:</p> <ol style="list-style-type: none"> 1. Budget 2. Box office 3. Awards won 4. Production company 5. Runtime range

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Use-Case Specification: Account Processing

Use-Case ID	004
Use-Case Name	Account Processing
Brief Description	Allow users to log in to Netflix.
Actors	Registered User: Client and Admin
Basic Flow	<ol style="list-style-type: none"> 1. The system displays the login interface. 2. Users choose the login method. 3. The system displays an interface for users to enter information corresponding to the login method. 4. Users enter login information and submit it to the system. 5. The system checks the user account information and compares it with the database. 6. The system provides feedback after confirming the correct account and redirects the user to the homepage.
Alternative Flows	<ol style="list-style-type: none"> 1. If the account holder enters invalid personal information at step 4, the system displays an error message to the user. 2. If the system finds an incorrect password entered at step 5, the system displays an error message to the user. 3. If the account holder does not enter the password correctly twice at step 4, the system displays an error message to the user.
Special Requirements	<ol style="list-style-type: none"> 1. The system should use strong encryption to protect the user's password. 2. The system should implement a password lockout mechanism to prevent unauthorized access. 3. The system should allow the user to set up two-factor authentication for additional security.
Pre-conditions	<ol style="list-style-type: none"> 1. Users must have a valid account with the system. 2. The user must have access to the internet. 3. Users must install a web browser on their device. 4. The user's account must not be locked or disabled. 5. The user should have at least one social media account
Post-conditions	<ol style="list-style-type: none"> 1. The user successfully logged into the system. 2. The user is redirected to the Netflix homepage 3. The user's session is initialized and a session token is generated. 4. The user's session token is stored in a secure cookie. 5. User access privileges are associated with the session token.
Extension Points	<p>Password changing/resetting: The user will receive a verification code sent via email or SMS to reset/change the password.</p> <p>Create account: The user will be redirected to the account registration interface and enter information to create an account before logging in.</p>

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Use-Case Specification: Customer Support

Use-Case ID	005
Use-Case Name	Customer Support
Brief Description	This use case outlines the steps for providing assistance to customers who require support.
Actors	<ol style="list-style-type: none"> 1. Customer 2. Support Services and Staff
Basic Flow	<ol style="list-style-type: none"> 1. The user click on the button for customer support in the navigation bar 2. A form with necessary fields pops up. 3. The user then fills in the form 4. The user clicks submit. 5. The system processes the report and responses to the user 6. Pops up a message showing that the request form was submitted successfully. 7. A detailed response, which is a solution to a user support request, will be sent by email.
Alternative Flows	<p><i>Alternative Flow 1:</i> Form filling is missing information.</p> <ol style="list-style-type: none"> 1. If the form is blank or the crucial information about the user's request is missing. <p><i>Alternative Flow 2:</i> The networking or system, which perceives, transports the event and data, occurs errors.</p> <ol style="list-style-type: none"> 1. The process of handling the submitted user's request has errors. <p>=> The system will pop up a message to the user saying error and require the user to refill then submit it again.</p>
Special Requirements	<ol style="list-style-type: none"> 1. The user request form shall be available at any device that is able to access the website of Netflix. 2. After the user presses the submit button, the system shall process and respond to the user in under 3 seconds.
Pre-conditions	<ol style="list-style-type: none"> 1. Users must have an account when in the system and logged in.
Post-conditions	<ol style="list-style-type: none"> 1. User's query is resolved or escalated by staff working with customer's report services. 2. User's satisfaction with the provided support is confirmed through email response from Users. 3. Records of the interaction are appropriately documented in the system.
Extension Points	<p><i>Extension Point 1: Customer Escalation</i></p> <ul style="list-style-type: none"> - During the issue resolution process, the support representative identifies a complex issue that requires escalation.

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Use-Case Specification: Movie Database Management

Use-case ID	006
Use-Case Name	Movie Database Management
Brief Description	This use case allows authorized administrators to manage the movie database by adding, updating, deleting, and searching for movies.
Actors	Admin
Basic Flow	<ol style="list-style-type: none"> 1. Admin selects "Manage Movies." 2. Admin chooses to add, update, or delete a movie, or search for movies. 3. For adding or updating, the admin searches for the movie and enters its details. 4. System validates data and stores it in the database. 5. For deletion, the admin searches for the movie, selects the movie to remove. 6. System deletes the selected movie from the database. 7. Admin logs out of the admin panel.
Alternative Flows	<p>Invalid Movie Information If admin enters invalid or incomplete movie information when adding or updating a movie, the system should:</p> <ol style="list-style-type: none"> 1. Notify the admin of the specific issues with the data. 2. Prevent the addition or update of the movie until valid information is provided. 3. Allow the admin to correct the data and resubmit. <p>Movie Not Found for Update or Deletion If admin attempts to update or delete a movie that is not found in the database, the system should:</p> <ol style="list-style-type: none"> 1. Display an error message informing the admin that the movie is not found. 2. Offer the option to search for another movie or return to the movie database management menu. <p>Unauthorized Access If an unauthorized user attempts to access movie database management functionality, the system should:</p> <ol style="list-style-type: none"> 1. Deny access and display an error message. 2. Notify the admin or appropriate personnel about the unauthorized access attempt for further investigation. <p>Database Error If there is an error during database operations, such as data storage, the system should:</p> <ol style="list-style-type: none"> 1. Display an error message indicating a technical issue. 2. Log the error for system administrators to investigate and resolve. <p>Canceling an Update or Deletion If admin cancels the update or deletion of a movie, the system should:</p> <ol style="list-style-type: none"> 1. Confirm the admin's intention to cancel the operation.

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	<p>2. Return admin to the movie database management menu without making any changes.</p>
Special Requirements	<p>Authorization and Access Control</p> <ul style="list-style-type: none"> - Only authorized administrators should have access to the movie database management functionality. Access should be controlled through secure authentication mechanisms. <p>Security and Data Privacy</p> <ul style="list-style-type: none"> - The system must adhere to data privacy regulations and protect sensitive movie information. Any personally identifiable information should be handled in compliance with relevant laws. <p>Database Backup and Recovery</p> <ul style="list-style-type: none"> - Regular backups of the movie database should be performed to ensure data recovery in case of system failures or data loss. <p>User Activity Logging</p> <ul style="list-style-type: none"> - All activities related to movie database management should be logged for audit and security purposes. Logs should include details such as the admin's actions and changes made. <p>Performance and Scalability</p> <ul style="list-style-type: none"> - The system should be capable of efficiently managing a growing movie database without a significant degradation in performance. Database operations should be optimized. <p>Compatibility and Integration</p> <ul style="list-style-type: none"> - The system should be compatible with the underlying database management system and support integration with other tools or systems used for content management. <p>Usability</p> <ul style="list-style-type: none"> - The user interface for movie database management should be user-friendly, making it easy for administrators to add, update, delete, and search for movies. It should include features such as auto-suggestions for movie titles or actors. <p>Error Handling and Recovery</p> <ul style="list-style-type: none"> - The system should have robust error-handling mechanisms and provide meaningful error messages to assist administrators in diagnosing and resolving issues. <p>Performance Monitoring and Reporting</p> <ul style="list-style-type: none"> - Monitoring tools should be in place to track the system's performance, including response times for database operations. The system should also generate reports for performance analysis.
Pre-conditions	<p>Authentication and Authorization</p> <ul style="list-style-type: none"> - The system must ensure that the admin has successfully logged into the Netflix admin panel and has been authenticated as an authorized administrator. <p>Availability of Admin Panel</p> <ul style="list-style-type: none"> - Netflix admin panel must be accessible and operational. <p>Database Connectivity</p> <ul style="list-style-type: none"> - The system should establish a connection to the movie database. The database must be available and functional. <p>Movie Database Populated</p> <ul style="list-style-type: none"> - The movie database should already be populated with existing movies if the admin intends to perform actions like updating or

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	deleting movies. If the database is empty, the admin may only add new movies.
Post-conditions	<p><i>Add Movie to Database</i></p> <ul style="list-style-type: none"> - If the admin has added a new movie to the database, the database is updated with the new movie's information, and the movie is available for users to access. <p><i>Update Movie Information</i></p> <ul style="list-style-type: none"> - If the admin has updated movie information, the changes are saved in the database, and the movie's details are now reflecting the updates. <p><i>Delete Movie from Database</i></p> <ul style="list-style-type: none"> - If the admin has successfully deleted a movie, the movie is removed from the database and is no longer available for users to access.
Extension Points	<p><i>Version Control</i></p> <ul style="list-style-type: none"> - Extend the use case to include version control capabilities for movie data, enabling administrators to track and manage different versions or changes made to movie information.

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Use-Case Specification: Subscription Plan Registration

Use-case ID	007
Use-Case Name	Subscription Plan Registration
Brief Description	This use case allows users to register a subscription plan including: Free, Premium, Signature. Additionally, they can cancel or extend their subscription in Premium and Signature.
Actors	Registered Users
Basic Flow	<ol style="list-style-type: none"> 1. User chooses to view different subscription plans 2. System displays different description plans with their description, privileges, and price 3. User selects to purchase a desired subscription plan alongside the subscription time 4. System moves user to confirmation and transaction page 5. User enters credentials to make the payment transaction 6. Payment management system checks and validates payment details 7. System displays the notifying the successful transaction 8. System grants the privileges according to the subscription pack to the user and updates the account's details on the database 9. System returns the user to the home page 10. The user navigates to the My Subscription section 11. The user can choose the cancel/extend the subscription pack
Alternative Flows	<p><i>Invalid payment credentials entered</i> When the payment management system checks the entered credentials and finds invalid information:</p> <ol style="list-style-type: none"> 1. System displays the message to notify the user of the invalid credentials 2. System returns the user to the credentials supplying page 3. The user re-enters the credentials for the transaction 4. The system re-validates the information entered <p><i>System fails to update the privilege of the user's account</i> If the system fails to update the privilege of the user's account due to any server errors:</p> <ol style="list-style-type: none"> 1. System displays the error message to notify the user about the incidence 2. System displays the message to assure that the perks of the user's account will be updated as soon as possible 3. System redirects the user to the home page 4. The user can watch movies with the account being at the previous state until the new subscription level is updated 5. System updates the user's account new subscription level
Special Requirements	<p><i>Server Stability Requirements:</i> The server should be working optimally so that the registration process occurs without major errors. Should there be a server error, the problem should be fixed in</p>

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	<p>approximately 5 minutes</p> <p><i>Payment Management System's Stability</i> The payment system should operate smoothly so that transactions made related to subscription registration may occur efficiently with a success rate of more than 98%, avoid making the user re-enter their credentials</p> <p><i>Payment Credentials Privacy</i> The information relating to the users' payment credentials and transaction details must be kept safe, private and secured assuring that there will be no sensitive information leakage.</p> <p><i>Handling Different Billing Cycles</i> The subscription registration system should be able to store and handle different billing cycles issued by the users</p>
Pre-conditions	<ol style="list-style-type: none"> 1. The users should already be registered and logged into Netflix 2. The subscription packs should already be defined and priced 3. The payment methods and tax rate should already be calculated 4. There should already be a payment managing and validating system 5. The users should already have at least 1 supported form of online payment method available
Post-conditions	<ol style="list-style-type: none"> 1. The user has been registered for the selected subscription pack for the desired period 2. The user has full access to the functionalities, privileges of the subscription pack 3. The user has been billed and a confirmation email is sent to the user by the system 4. Information of the registration has been recorded into the database
Extension Points	<p><i>Get Help On Registration</i> This takes place during registration and allows the user to access FAQs (Frequently Asked Questions) or reach out to customer support for help relating to the whole registration process or any specific step in that whole process.</p> <p><i>Set Schedule For Auto-Extension</i> This takes place after the user has successfully subscribed to a certain tier and allows the user to extends their subscription automatically after a certain period of time after it has expired, saving time for re-registration</p> <p><i>Discounts And Promotions</i> This takes place upon subscription tier selection and allows the user to apply some short-period (on special occasions) or personally provided (on special occasions, via email...) discount codes to earn the subscription with a better price</p>

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Use-Case Specification: Subscription Payment Services

Use-case ID	008
Use-Case Name	Subscription payment services
Brief Description	The application shall provide and support multiple formats of online banking payment for higher qualified accounts.
Actors	Registered User
Basic Flow	<ol style="list-style-type: none"> 1. The user selects the "Purchase" option. 2. The system displays the pricing information for the high-grade account. 3. The user selects the desired payment method (e.g., credit card, PayPal, etc.). 4. The user enters their payment information. 5. The system validates the information 6. The system checks whether the account's balance is enough to pay the price. 7. The system processes the transaction. 8. The system confirms transactions and reports the bill to the client. 9. The system updates the user account class in the database.
Alternative Flows	<p><i>Inappropriate payment information given:</i> Occur on user inputting the invalid information such as invalid credit card, invalid bank account, ..</p> <ol style="list-style-type: none"> 1. The system raises an announcement about retrieving the incorrect payment content on the user display console . 2. The user is prompted to correct the payment information <p><i>Loss of misallocation of funds during transfer process:</i> When system recognizes drop of money allocation during the transaction:</p> <ol style="list-style-type: none"> 1. The system rolls back the state of user information in the system database. 2. An error announcement is displayed on the user's console screen. 3. Users are asked to redo the purchase operation.
Special Requirements	<ol style="list-style-type: none"> 1. The whole transaction procedure should be committed within 0.1 second and a bill must be written to return to the user no longer than 1 second. 2. On validation failure encounters, the system must cancel the user tier upgrading as well as the transfer process and their balance is required to be recovered to the previous state.
Pre-conditions	<ol style="list-style-type: none"> 1. The user must have a registered account 2. The user must have selected the desired subscription plan.
Post-conditions	<ol style="list-style-type: none"> 1. The user's account is upgraded to the high-grade account. 2. The user's payment information is securely stored. 3. The user receives a confirmation bill via email about the transaction.
Extension Points	<i>Payment data collection:</i>

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	<ol style="list-style-type: none"> 1. The system shall save the payment method that was chosen by the user and its information so that the authentication and validation operation would be faster for any future transaction. 2. The user can give feedback to express their experiences about the transaction
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Use-Case Specification: Movie Suggesting

Use-case ID	009
Use-Case Name	Movie Suggesting
Brief Description	This use case describes the process by which the system suggests movies to users based on their viewing history, ratings, and other factors.
Actors	System, User
Basic Flow	<ol style="list-style-type: none"> 1. The user logs into the system and is redirected to the homepage. 2. The system loads suggestion data based on the user's personal data and currently popular movies. 3. Lists a selection of movies suitable for the user. 4. The system runs previews on the homepage and allows the user to view movie details or watch the movie by clicking on it.
Alternative Flows	<p>New users with no existing data:</p> <ol style="list-style-type: none"> 1. If the user does not have a viewing history with the system, the system will suggest popular movies. 2. If the user has not rated any movies on the system, the system will suggest a variety of movies from different genres. 3. If the system is unable to generate any suggestions, it will display a message to the user.
Special Requirements	<ol style="list-style-type: none"> 1. The system should use a machine learning algorithm to generate personalized movie suggestions for each user. 2. The system should keep track of user feedback on suggestions to improve the accuracy of its recommendations over time. 3. The system should allow users to customize their suggestion preferences, such as the number of suggestions to display and the genres to include.
Pre-conditions	<ol style="list-style-type: none"> 1. The user must have a valid account with the system. 2. The user should be using Netflix for a certain period of time.
Post-conditions	<ol style="list-style-type: none"> 1. The system displays a list of suggested movies to the user. 2. The suggested movies are relevant to the user's interests, based on their viewing history and ratings. 3. The user is able to view more information about each suggested movie, such as the title, genre, release date, and cast.
Extension Points	<p><i>Social Recommendations</i></p> <p>This allows the system to access the list of friends of the account to make suggestions of what the other accounts are watching on the system to that user</p>

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Use-Case Specification: Movie Trailer Display

Use-case ID	010
Use-Case Name	Movie Trailer Display
Brief Description	A trailer of the films will be shown to the user when they are needed.
Actors	User
Basic Flow	<ol style="list-style-type: none"> 1. On the Netflix client website, users click on the selected films they consider to watch. 2. The system will redirect users to the detailed page for the selected movie. 3. The user will click the trailer button for watching the selected movie trailer. 4. The user will be redirected to a new page for watching the trailer. 5. The trailer will be displayed to the user.
Alternative Flows	<p>Alternative Flow 1: At step 2, if an error happens, the user will get notification and return to the main page.</p> <p>Alternative Flow 2: At step 4, if an error happened. the user will get notification and return to the movie details page.</p>
Special Requirements	<ul style="list-style-type: none"> - User's wait time shall be under 2 seconds - User's must have error notification friendly - If an error occur, user will be backed to the last page which is not error - Trailer shall be displayed with reasonable resolution. - Ensure the trailer playback is compatible across various devices (phones, tablets, smart TVs) and operating systems commonly used by the app's target audience. - The app must ensure that trailers are available for a significant portion of the movie catalog. Regular checks and updates should be made to ensure trailers are accessible and up-to-date.
Pre-conditions	<ol style="list-style-type: none"> 1. The user must have an account at Netflix 2. Users must log in the system for further uses. 3. The movie must have an movie trailer 4. The movie trailer is displayed on the user's screen. 5. Playback controls are available and functional for the user. 6. User's ability to access the trailer remains consistent and uninterrupted.
Post-conditions	After the trailer is finished, the system will remain the current page.
Extension Points	<p>Network Connectivity Issues:</p> <ul style="list-style-type: none"> - If there are network problems, the app prompts the user to check their connection and retries the trailer playback. <p>Technical Errors:</p> <ul style="list-style-type: none"> - In case of technical issues, an error message is displayed, and the user is prompted to try again or report the issue.

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Use-Case Specification: Creating A Personal Watchlist

Use-case ID	011
Use-Case Name	Creating A Personal Watchlist
Brief Description	The system allows users to create a personalized movie list.
Actors	User
Basic Flow	<ol style="list-style-type: none"> 1. The user navigates to the "Watchlist" page. 2. The user clicks on the "Create New Watchlist" button. 3. The user enters a name for their watchlist and clicks on the "Create" button. 4. The system creates the new watchlist and displays it to the user. 5. Users can click on a movie and choose the 'Add to list' function to add the movie to their created list. 6. The system will record and update that movie in the list.
Alternative Flows	<ol style="list-style-type: none"> 1. If the user tries to create a watchlist with the same name as an existing watchlist, the system will display an error message. 2. If there are any errors relating to the process of fetching, updating the Watchlist data in the database, the system will display an error message
Special Requirements	<ol style="list-style-type: none"> 1. The system should allow users to create multiple watchlists. 2. The system should allow users to share their watchlists with other users. 3. The system should allow users to filter and sort their watchlist items.
Pre-conditions	<ol style="list-style-type: none"> 1. The user must have a valid account with the system. 2. The user must have access to the internet. 3. The user must have a web browser installed on their device. 4. There should already be a way to manage the user's watchlists
Post-conditions	<ol style="list-style-type: none"> 1. The user has successfully created a personal watchlist. 2. The user can view and manage their watchlist at any time. 3. The user can receive notifications when new content is added to their watchlist. 4. Movies can be selected and added to the created watchlist
Extension Points	Arrange movies: Users can sort movies by genre, rating, etc. by selecting the 'Sort Movies' function located in the corner.

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Use-Case Specification: Unfinished Movies Listing

Use-case ID	012
Use-Case Name	Unfinished Movies Listing
Brief Description	This use case enhances the user experience by allowing them to easily resume watching incomplete movies.
Actors	Registered User: Client and Admin
Basic Flow	<ol style="list-style-type: none"> 1. Users log into their Netflix account. 2. User navigates to the "Unfinished Movies" section. 3. System displays a list of movies the user has started but not finished. 4. User selects a movie to resume watching. 5. System resumes playback from where the user left off. 6. User completes the movie. 7. System marks the movie as finished and removes it from the "Unfinished Movies" list. 8. User logs out when done.
Alternative Flows	<p>No Unfinished Movies</p> <ul style="list-style-type: none"> - If user has no unfinished movies in their list, the system should: <ol style="list-style-type: none"> 1. Display a message indicating that the user's list of unfinished movies is empty. 2. Offer the user options to browse and select other movies. <p>Technical Issue</p> <ul style="list-style-type: none"> - If there is a technical issue preventing the system from resuming playback or marking a movie as finished, the system should display an error message indicating a technical problem.
Special Requirements	<p>User Privacy and Data Security</p> <ul style="list-style-type: none"> - The system should prioritize user data privacy and comply with data protection regulations. It should securely store and manage user viewing history and progress data. <p>Performance and Scalability</p> <ul style="list-style-type: none"> - The system should provide fast and responsive loading of the unfinished movies list, even for users with a large number of incomplete movies. It should be scalable to handle increased user activity. <p>Usability</p> <ul style="list-style-type: none"> - The user interface for accessing the unfinished movies list should be intuitive and user-friendly, enhancing the user experience. <p>Error Handling and Feedback</p> <ul style="list-style-type: none"> - The system should have robust error-handling mechanisms, providing clear and user-friendly error messages to help users diagnose and resolve issues. <p>Opt-Out Mechanism</p>

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	<ul style="list-style-type: none"> - Users should have the option to opt out of having their viewing history tracked and, subsequently, removed from the unfinished movies list.
Pre-conditions	<p><i>User Authentication</i></p> <ul style="list-style-type: none"> - The user must successfully log into their Netflix account, providing valid credentials. <p><i>User Account Status</i></p> <ul style="list-style-type: none"> - The user's Netflix account must be in good standing and not suspended or banned. <p><i>Availability of Unfinished Movies List</i></p> <ul style="list-style-type: none"> - The system should have recorded and maintained the user's viewing history, including information about which movies they have started but not finished. <p><i>Privacy Settings</i></p> <ul style="list-style-type: none"> - The user's privacy settings or preferences should allow the system to track their viewing history. If the user has opted out of tracking, this feature should be disabled.
Post-conditions	<p><i>Viewing Unfinished Movies List</i></p> <ul style="list-style-type: none"> - After the user views their list of unfinished movies, the system remains in the same state, displaying the list and retaining all user data and preferences. <p><i>Resuming Playback</i></p> <ul style="list-style-type: none"> - After the user selects a movie to resume watching and the system resumes playback, the system remains in a state where the movie continues playing from where the user left off.
Extension Points	<p><i>Recommendation Engine Integration</i></p> <ul style="list-style-type: none"> - Extend the use case to integrate a recommendation engine that suggests movies the user might like based on their viewing history, providing recommendations within the "Unfinished Movies" section.

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Use-Case Specification: Parental-administrating On Accounts

Use-case ID	013
Use-Case Name	Parental-administrating On Accounts
Brief Description	This allows users who are parents to control and monitor the overall usage level of their children, including: monitor average screen time, limit explicit content and enable academic-oriented content suggestions
Actors	Registered User: Parent
Basic Flow	<ol style="list-style-type: none"> 1. User navigates to the “Parent Mode” section in “Account Management” 2. System directs user to the Parent Mode panel 3. System displays the Parent Mode panel to the parent 4. User chooses to enable/disable Parent Mode 5. If the user chooses to disable Parent Mode, system requires password from user 6. User enters password 7. System checks and validates the user’s password 8. System updates the Parent Mode state of the account in the database 9. System displays the message to notify the user of the change 10. The user is redirected to the home page
Alternative Flows	<p><i>System fails to update the state of account</i> If the system can’t update the state of the account in the database due to some technical issues:</p> <ol style="list-style-type: none"> 1. System displays the error to notify the user that the Parent Mode can’t be enabled/disabled for some issues 2. System returns user to the panel with the old settings <p><i>Invalid password entered</i> If the user enters the wrong password while trying to disable Parent Mode:</p> <ol style="list-style-type: none"> 1. System displays the message to notify that the password entered was wrong and Parent Mode not successfully disabled 2. System takes the user back to the Parent Mode panel with the old settings
Special Requirements	<p><i>User Experience</i> The parental-administration interface should be intuitive and friendly for parents of different age groups to use</p> <p><i>Server Stability</i> Changes made to the state of the Parent Mode should be updated fast and with an approximate delay of 1 second. Additionally, the server is expected to function stably during the update process.</p>

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	<i>Security Requirements</i> The step of disabling Parent Mode should be thoroughly validated by verifying the account's password in order to avoid children disabling the Parent Mode themselves
Pre-conditions	<ol style="list-style-type: none"> 1. The parent (user) should already have an account registered in Netflix 2. There should already be at least 2 user profiles: one for the parent, one for their children 3. Academic-oriented content should already be available in the system 4. The parent's consent should already be collected before allowing any modifications with the parental-administration system
Post-conditions	<ol style="list-style-type: none"> 1. The parent should be able to monitor the children's activities on Netflix 2. The child's exposure to explicit content is minimized 3. The child's viewing habits and viewing time are more healthy
Extension Points	<i>Educational Resources Integration</i> This allows the academic-oriented content suggestions to be diverse on various categories to ensure that the experience remains entertaining and fun for children

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Use-Case Specification: Customer Review

Use-case ID	014
Use-Case Name	Customer review system
Brief Description	Users can make reviews about their experience with the application as well as the movies that they watched by commenting or giving ratings.
Actors	Registered user
Basic Flow	<ol style="list-style-type: none"> 1. The user selects the review option while on the movie page. 2. The user enters their review content, including any comments and ratings they wish to provide. 3. The user submits the review. 4. The system stores the review data and its timestamp. 5. The system displays previous reviews from other users.
Alternative Flows	<p>User review submission failed: Occur when user connection failed:</p> <ol style="list-style-type: none"> 1. The system cancels the user submission. 2. An announcement is raised on the user's screen to explain that the submission has failed 3. The user is prompted to check the Internet connection and rewrite the retry submission.
Special Requirements	<ol style="list-style-type: none"> 1. The system must complete the review storing procedure under 0.1 second. 2. On listing previous comments from other users on the same movie, the list should be sorted out from latest to oldest ones.
Pre-conditions	<ol style="list-style-type: none"> 1. The user must have a registered account. 2. The user must have accessed the movie page they want to review.
Post-conditions	<ol style="list-style-type: none"> 1. The user's review is submitted and stored in the system database. 2. The system displays a list of previous reviews and ratings from other users and the current one as well.
Extension Points	<p>Review system enhancement:</p> <ol style="list-style-type: none"> 1. The system should implement a review moderation process to ensure that reviews adhere to community guidelines and are relevant to the application or movie they are about. 2. The system should collect and analyze user feedback from reviews to identify areas for improvement in the application or movie. <p>User review history:</p> <ol style="list-style-type: none"> 1. Implementation of a recommendation engine to suggest relevant applications or movies to users based on their review history.

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Use-Case Specification: Customer Loyalty Programs

Use-case ID	015
Use-Case Name	Customer Loyalty Programs
Brief Description	How customers can earn and redeem rewards through a customer loyalty program, and how the system can use this information to send them personalized ads and discount codes.
Actors	User
Basic Flow	<ol style="list-style-type: none"> 1. Users purchase movies or renew subscriptions on Netflix. 2. The system checks whether the user is a loyal customer. 3. Regularly, the system checks the user's transactions and considers which users will receive loyalty customer codes. 4. The system uses customer purchase history and preferences to generate personalized advertisements and discount codes. 5. The system sends personalized advertisements and discount codes to customers via email. 6. Customers can redeem their rewards on the Netflix system or use them to get discounts when purchasing movies or subscribing to services.
Alternative Flows	<ol style="list-style-type: none"> 1. If the customer's account is suspended or terminated, they will not be able to earn or redeem rewards or receive personalized ads and discount codes. 2. If the customer attempts to redeem rewards for an item that is not eligible, the redemption will be rejected. 3. If the customer does not want to receive personalized ads and discount codes from the system, they can opt out of these communications by updating their account settings
Special Requirements	<ol style="list-style-type: none"> 1. The system should track the customer's purchase history and preferences in order to generate personalized ads and discount codes. 2. The system should allow customers to opt out of receiving personalized ads and discount codes. 3. The system should comply with all applicable privacy laws and regulations.
Pre-conditions	<ol style="list-style-type: none"> 1. The customer must have a valid account with the system. 2. The customer must have enrolled in the customer loyalty program. 3. The customer must have provided their email address to the system. 4. The customer should have given their consent to receive promos, emails from the system
Post-conditions	<ol style="list-style-type: none"> 1. The customer has earned rewards for their purchases. 2. The customer has redeemed rewards for discounts, products, or services. 3. The customer has received personalized ads and discount codes from the system via email.
Extension Points	<p><i>Collect Data For Advertising Enhancements</i></p> <p>This allows the statistics on: the amount of promos used, the number of users</p>

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	registered for the loyalty program...etc to be collected to optimize the advertisements and the loyalty program itself
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Use-Case Specification: Reminder System

Use-case ID	016
Use-Case Name	Reminder System
Brief Description	This use-case is a system that continuously reminds users to use the app for watching movies from promotion, advertising, events,...
Actors	Admin, User
Basic Flow	<ol style="list-style-type: none"> 1. The promotion, advertising, events,... is automatically or manually added to the reminder system. 2. The system will analyze and sort the event by date. 3. Top 5 of the nearest events is show on the left sidebar of the web 4. A notification about the top 3 events is notified through email or app notification on schedule by day. 5. The user acknowledges the notification. 6. System write down log information.
Alternative Flows	<p>Notification Preferences Update:</p> <ul style="list-style-type: none"> - If a user changes their notification preferences, the system adjusts the delivery of promotions or reminders accordingly. <p>Failed Delivery:</p> <ul style="list-style-type: none"> - In case of delivery failure (e.g., invalid contact information), the system logs the failure and may attempt redelivery or flag the issue for manual review
Special Requirements	<ol style="list-style-type: none"> 1. The notification shall be easy to read, hitting the user. 2. The notification shall be sent on time, which is scheduled, with the delay under 10 minutes. 3. Evaluate the frequency and timing of notifications to maintain user engagement without causing annoyance. 4. Regularly review the effectiveness of reminders and promotions through user engagement metrics.
Pre-conditions	<p>The users must have their own account on the Netflix system</p> <p>The users must subscribe to the reminder system</p>
Post-conditions	User interactions (acknowledgment, dismissal, action) with the notifications are appropriately logged
Extension Points	<p>Extension point 1: Extension Point: Predictive Personalized Reminders</p> <ul style="list-style-type: none"> - Scheduled analysis of user behavior and preferences. - This extension leverages data analysis and predictive modeling to deliver more personalized reminders, enhancing user engagement and potentially increasing the relevance of the notifications for individual users. Adjust the steps and methodologies to fit the available data and predictive capabilities of your system.